
Classifying Hazards

Overview

Introduction

Safety and Health professionals classify hazards according to the Estimated Hazard Severity and the Estimated Mishap Probability. Then, the hazards are assigned a Risk Assessment Code (RAC). (See the matrix on the following page.)

Purpose

The purpose of this module is to explain the procedures used by a safety and health professional to classify a hazard.

Classification of Hazards

Estimated Hazard Severity

Estimated Hazard Severity (EHS) is a judgment of the worst possible consequence, defined by the degree of injury, occupational illness, or property damage that ultimately could occur.

Hazard severity categories are assigned by Roman numeral, according to the following criteria:

Category I—Death, permanent total disability

Category II—Permanent partial disability or temporary total disability in excess of 3 months, or major property damage

Category III—Lost workday (day away from work) mishap/compensable mishap, or minor property damage

Category IV—First aid or minor supportive medical treatment mishap

Estimated Mishap Probability

Estimated Mishap Probability (EMP) is an assessment of the likelihood, given exposure to a hazard, a mishap will result, and is based on an assessment of such factors as location, exposure in terms of cycles or hours of operation, and affected population. EMP is assigned an upper case letter as follows:

Category A—Likely to occur immediately or within a short period of time

Category B—Probably will occur, in time

Category C—Possible to occur, in time

Category D—Unlikely to occur



When hazards are around, safety records go down.

Classification of Hazards, Continued

RAC

A RAC is an expression of risk associated with a hazard combining the estimated hazard severity and estimated mishap probability into a single Arabic numeral. This is done by locating the point of intersection in the matrices provided in the figure below.

RACs for hazards to safety

Use the matrix and description definitions below to determine the RAC.

		ESTIMATED ACCIDENT PROBABILITY			
		A	B	C	D
ESTIMATED HAZARD SEVERITY	I	1	1	2	4
	II	1	2	3	4
	III	2	3	4	5
	IV	4	4	5	5

The meaning of RACs is as follows:

1. Critical
2. Serious
3. Moderate
4. Minor
5. Negligible

Imminent danger

Imminent danger is a hazardous situation assigned a hazard severity/mishap probability category of IA or IIA. Only safety and health professionals may determine if a situation is an imminent danger one or not. Imminent danger is defined as a condition or practice posing a danger that reasonably could cause death or severe physical harm immediately or before the danger is eliminated through normal procedures.